SOCIAL NORMS AMONG PEERS AND SOCIAL NORMS AMONG FRIENDS AND THEIR INFLUENCES ON ADOLESCENTS' SEXUAL RISK PERCEPTIONS

A Thesis

by

CASSANDRA SOMADEVI DIEP

Submitted to the Office of Graduate Studies of
Texas A&M University
in partial fulfillment of the requirements for the degree of

MASTER OF SCIENCE

August 2009

Major Subject: Health Education

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Approved by:

Chair of Committee,	E. Lisako J. McKyer
Committee Members,	Corliss W. Outley
	B.E. "Buzz" Pruitt
Head of Department,	Richard B. Kreider

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ABSTRACT

Social Norms Among Peers and Social Norms Among Friends and Their Influences on Adolescents' Sexual Risk Perceptions. (August 2009)

Cassandra Somadevi Diep, B.A., Rice University

Chair of Advisory Committee: Dr. E. Lisako J. McKyer

The influence of peers and peer norms is a significant health determinant of adolescent sexual activity, yet little is known in health education about differences between peer pressure and friend pressure on adolescents. The objective of this study was to investigate differences between social norms among friends and social norms among peers and determine if differences influence adolescents' sexual risk perceptions. As a secondary data analysis of the 2006 Adolescent Health Risk Behaviors Survey data, this study included 915 adolescents in grades 8, 10, and 12 who completed questions pertaining to perceived sexual activity rates and perceived risks from having unprotected sex. T-tests, analyses of variance, and linear regression analyses indicated that adolescents perceived a difference between social norms among peers and social norms among friends and that these differences influenced risk perceptions differently. Future research should explore how social norms among friends influence adolescents' risk behaviors and how to incorporate this focus into effective and efficient sex education efforts.

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INTRODUCTION

Adolescent sexual activity and its influences from interpersonal relationships and perceived social norms have significant implications for public health efforts. Early initiation of sexual activity has been linked to an increased number of lifetime sexual partners, unplanned teenage pregnancy, sexually transmitted infections, and other negative social and psychological outcomes (Guilamo-Ramos, Jaccard, Dittus, Gonzalez, & Bouris, 2008; O'Donnell, O'Donnell, & Stueve, 2001; Skinner, Smith, Fenwick, Fyfe, & Hendriks, 2008). Because of the threats of sexual exploration and activity on adolescent health, health education programs have been designed and implemented that aim to reduce sexual risk-taking among adolescents by teaching abstinence, postponing sexual initiation, or demonstrating successful condom use; however, the effectiveness of such programs has been inconsistent (DiClemente, Salazar, & Crosby, 2007; Goodson, Pruitt, Suther, Wilson, & Buhi, 2006; Malow, Kershaw, Sipsma, Rosenberg, & Dévieux, 2007). The ineffectiveness of these programs and the complexity of adolescent sexuality have illuminated the need to explore adolescent behaviors outside the perspective of the individual (Skinner et al., 2008).

One factor commonly identified and explored as a health determinant of risk behavior is peer influences (Jaccard, Blanton, & Dodge, 2005); unfortunately, the term "peer" is often used to connote "friend", whereas in reality, the two terms may be

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This thesis follows the style of *Journal of Youth and Adolescence.*

distinct. Current research and health education efforts have explored the impact of peer norms and peer pressure on adolescents' perceptions and behaviors, but little is known in health education about differences between peer pressure and friend pressure on adolescents. Thus, it is imperative to empirically examine whether adolescents equate peers with friends or if differences exist between the two and affect adolescent risk perceptions and behaviors differently. The intention of this study is to gain a better understanding of the influences of peers on adolescents' risk-taking attitudes and behaviors concerning sexual activity – more specifically, to make a distinction between social norms among peers and social norms among friends and to determine if these distinctions affect adolescents' own risk perceptions.

Sexual Activity Among Adolescents

Concerns about sexual activity, sexually-transmitted infections, and pregnancy among adolescents have increased over recent decades (U.S. Department of Health and Human Services, 2008). Although rates of teenage sexual activity, pregnancy, abortions, and births have decreased since the 1990s, sexually-transmitted infection rates among young adults remain high, as does the percentage of young adults engaging in sexual activity (Kaiser Family Foundation, 2008).

In 2007, 47.8% of 9th through 12th graders reported having had sexual intercourse according to the 2007 Youth Risk Behavior Surveillance System (YRBSS), which incorporates results from the 2007 Youth Risk Behavior survey, 39 state surveys and 22 local surveys (Eaton et al., 2008). Of all the survey participants, the prevalence

of having had sexual intercourse increased with increasing grade level. 32.8% of 9th graders, 43.8% of 10th graders, 55.5% of 11th graders, and 64.6% of 12th graders reported sexual activity. The prevalence of being currently sexually active illustrated a similar rise; it ranged from 20.1% among 9th graders, 30.6% among 10th graders, 41.8% among 11th graders, and 52.6% among 12th graders, resulting in a total of 35.0% of all survey participants currently being sexually active. In addition, 7.1% reported having had their first sexual intercourse before 13 years of age.

Along with grade-specific data on sexuality rates among adolescents, the YRBSS reports percentages by gender; 49.8% of males reported having had sexual intercourse, as compared to 45.9% of females (Eaton et al., 2008). De Gaston, Weed, and Jensen (1996) also found similar results in a survey of over 1,800 nonurban seventh- and eighth-grade students in California, Oregon, Washington, and Idaho. They found that females were less likely to engage in sexual activity and were more committed to abstinence. However, they also found that when controlling for virgin status, there were no gender differences among nonvirgin males and nonvirgin females in frequency and recency of sexual activity.

These rates of sexual activity among adolescents illustrate not only the high proportion of adolescents having sexual intercourse but also discrepancies between younger and older ages and between males and females. Such numbers support the need to better understand the reasons for and reality of greater sexual activity in males and in older youths.

The Influence of Peers on Adolescent Risk Behaviors

Over recent decades, there have been numerous research studies supporting the influence of peers on adolescent risk behaviors and perceptions. From school to youth groups, social contexts frame the lives of adolescents and foster the formation of peer relationships that emphasize the importance of belonging (Bauermeister, Elkington, Brackis-Cott, Dolezal, & Mellins, in press). Youths become involved in peer groups whose norms are considered attractive or similar to their own and then begin to incorporate these norms into their own behavior (Crosnoe & McNeely, 2008).

Such influences from peer relationships are also apparent for adolescent sexual activity. Peers may reinforce or change certain attitudes and behaviors regarding sexual activity (Albarracin, Kumkale, & Johnson, 2004; Fang, Stanton, Li, Feigelman, & Baldwin, 1998), leading to similar rates of, perceptions about, and intentions to engage in sexual activity among peer groups (Fang et al., 1998). One study by Pedlow and Carey (2004) discovered that out of seven HIV/STI prevention programs that measured the impact of peer norms on adolescent sexual activity, five found peer norms that supported abstinence and safer sex practices to have delayed initiation of sexual activity and increased use of condoms.

The influence of peer norms on adolescent sexual activity has also been investigated by age and gender. In terms of age, there have been conflicting findings on whether younger teenagers or older teenagers are more susceptible to peer influences (Berndt, 1979; Pedlow & Carey, 2004; Romer et al., 1994). Although Berndt (1979) argued that younger adolescents are more impressionable and influenced by peer

pressure for risk behaviors, other researchers found that the effects of peer norms and perceptions of peer norms were more striking among older youth than among younger youth as the importance of peer-based friendships strengthened (Pedlow & Carey, 2004; Romer et al., 1994). As for gender differences, Sheeran, Abraham, and Orbell (1999) concluded that females assigned more importance to their social relationships than males and thus, were more swayed by peer norms than males. These differences in peer pressure by gender and by age and the discrepancies in existing research illuminate the need to study not only the relationship between peer norms and sexual activity but also the exact roles of gender and age in this relationship.

Theories and Models Incorporating Peer Norms

The complexity and implications of adolescent sexual activity have led researchers to explore theories and models that incorporate the role of peer norms into understanding and changing attitudes and behaviors of adolescents. Some teenage-pregnancy prevention programs have utilized the subjective norm construct from the Theory of Planned Behavior and cues to action from the Health Belief Model as theoretical avenues for explaining the relationship between peer norms and adolescent sexual behavior (Bauermeister et al., in press). Another utilized construct is the community/peers level of socio-ecological models.

Adapted from Bronfenbrenner's Ecological Model (1979), socio-ecological models explain behavior as a synergy between biology, health behaviors, and environment using five spheres of influence – individual, family, relational,

community/peers, and societal levels (Christopherson, 2001; DiClemente, Salazar, Crosby, and Rosenthal, 2005; Kothari, Edwards, Yanicki, Hansen-Ketchum, Kennedy, 2007). Although all socio-ecological models incorporate biology, health behaviors, and environment, there exists a variety of depictions that place the five spheres of influence in different orders. In one model used by DiClemente et al. (2005), the innermost circle represents the individual level and comprises physical, psychological, and behavioral characteristics of the individual, such as personal shyness, drug and alcohol use, and sex. The next three spheres – family, relational, and community/peers – signify influences from family members, significant others, and peers, respectively. Examples include childhood bonds and marital conflict. The outermost layer represents societal characteristics, such as gender roles, societal norms, healthcare policies, discrimination and prejudice, and media. An adaptation of this model is illustrated in Figure 1.

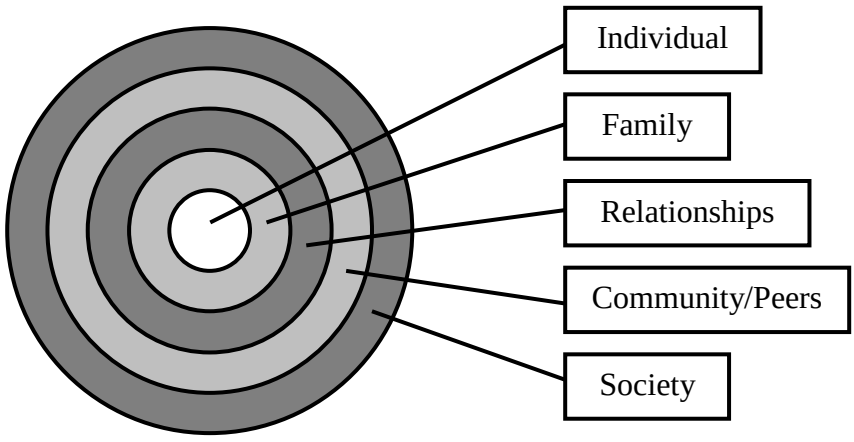

Figure 1. An Adaption of a Socio-Ecological Model by DiClemente et al. (2005)

With a recent emphasis for health promotion conceptual frameworks to be more comprehensive and holistic, socio-ecological models are relevant to understanding adolescent sexual behavior and other risk-taking attitudes and behaviors (Christopherson, 2001; DiClemente et al., 2005). In the context of adolescent sexual behavior and risk perceptions, parental beliefs, media messages, sex education classes, and other factors all work together to influence an individual's sexual activity perceptions and behavior. The influence of peers and peer norms on such behavior can be understood as a segment of the community/peers level and as one factor in the multiplicity of health determinants that affect adolescent behavior.

Research Purpose

The purpose of this study is to develop a more complete understanding of how peers influence adolescents' risk-taking attitudes and behaviors concerning sexual activity. Although literature has examined influences of peer norms on individuals' perceptions and behaviors, existing literature in health education does not adequately differentiate between peers and friends. Thus, the study aims to make a distinction between social norms among friends and among peers, as well as to determine if these distinctions affect adolescents' own risk perceptions. The two research questions are 1) Do adolescents perceive a difference between social norms among friends and social norms among peers? If so, are there differences by sex and/or developmental status? and 2) How do differences between perceived social norms among friends and perceived social norms among peers influence adolescents' own risk perceptions?

Objectives and Hypotheses

The first study objective is to investigate differences between social norms among friends and social norms among peers. To measure social norms, sexual activity descriptive norms – or perceptions regarding the percentage of one's peers and one's friends engaging in sexual activity (Guilamo-Ramos et al., 2008) – were used. We hypothesized that there would be differences in sexual activity descriptive norms pertaining to friends and sexual activity descriptive norms pertaining to peers and that differences would exist by sex and developmental status. More specifically,

1) $H_0$1: Youth will report no differences between the perceived sexual activity rates of peers and the perceived sexual activity rates of friends.
    a) $H_0$1a: When comparing 8th, 10th, and 12th graders, there will be no differences between youths' perceptions of sexual activity rates of peers and youths' perceptions of sexual activity rates of friends.
    b) $H_0$1b: When comparing males and females, there will be no differences between youths' perceptions of sexual activity rates of peers and youths' perceptions of sexual activity rates of friends.
2) $H_1$1: Youth will report differences between the perceived sexual activity rates of peers and the perceived sexual activity rates of friends.

The study also aims to investigate how differences between social norms among friends and social norms among peers influence adolescents' sexual risk perceptions. These perceptions include three types of risk perceptions – personal risks, risks to peers,

and risks versus benefits (Omori & Ingersoll, 2005) – associated with the health-risk behavior of having unprotected sex. We hypothesized that perceived social norms among peers and perceived social norms among friends would influence risk perceptions differently. More specifically,

1) a) $H_0$2a: There will be no differences in 1) the relationship between youths' perceptions of sexual activity rates of peers and youths' perceptions of personal risks from having unprotected sex and 2) the relationship between youths' perceptions of sexual activity rates of friends and youths' perceptions of personal risks.

   b) $H_0$2b: There will be no differences in 1) the relationship between youths' perceptions of sexual activity rates of peers and youths' perceptions of risks to peers from having unprotected sex and 2) the relationship between youths' perceptions of sexual activity rates of friends and youths' perceptions of risks to peers.

   c) $H_0$2c: There will be no differences in 1) the relationship between youths' perceptions of sexual activity rates of peers and youths' perceptions of risks versus benefits related to having unprotected sex and 2) the relationship between youths' perceptions of sexual activity rates of friends and youths' perceptions of risks versus benefits.

2) $H_1$2: Perceived social norms among peers and perceived social norms among friends will have different relationships with risk perceptions.

METHODS

Participants and Procedure

This study utilized existing data (i.e., secondary data). The data from this cross-sectional study were obtained from the Adolescent Health Risk Behaviors Survey (AHRBS) – an instrument developed by Omori and McKyer in 2005 to investigate the impact of social and environmental factors on adolescent health risk behaviors.

The original data were collected during the 2006 school year, as part of the 16th Annual Survey of Alcohol, Tobacco and Other Drug Use by Indiana Children and Adolescents (Gassman et al., 2006). Data concerning alcohol, tobacco, and other drug (ATOD) use were collected using the AHRBS from approximately 2,000 sixth- through twelfth-grade students in Monroe County, Indiana and from a statewide convenience sample of private middle and high schools. The AHRBS instrument was distributed to randomly selected classrooms within randomly selected schools in this study. All study procedures were approved by appropriate institutional review boards, and participants provided consent.

The present analysis was restricted to 8th-, 10th-, and 12th-grade students to allow for sampling of various stages in developmental sequences (Bachman, Johnston, O'Malley, & Schulenberg, 2006). Similar to the widely cited Monitoring the Future study conducted by the University of Michigan (University of Michigan, 2009), the 8th-grade samples were chosen to provide information on those in the beginning of adolescent development, during which risk behaviors emerge (Bachman et al., 2006). In

contrast, 12th graders provide information on young adults near the end of adolescent development. Tenth graders were then selected to serve as the middle point; with additional years of development beyond 8th graders and with driver licenses, 10th grade marks the period during which most adolescents begin to drive and gain increased independence.

Measures

The AHRBS instrument, a modification of an instrument originally designed and administered by Omori (Omori, 2001), contained items and scales intended to measure demographics and variables for self-esteem, normative perceptions, risk-perception, and the incidence and prevalence of ATOD use. The survey contained 190 questions plus additional items about demographics. A copy of this instrument is available in Appendix A. The analyses for this study included only those questions pertaining to sexual activity or unprotected sex. These questions, scales, and variables are included in Table 1.

Table 1. Description of Descriptive Norms and Risk Perceptions Variables

Variable		Indicator	Measurement Scale	
Descriptive Norms	Risk Perceptions			
Social norms among peers (i.e., perceived sexual activity rates of peers)		Q46. "What percentage of people your age do you think are sexually active?"	0 = 0% 1 = 10% 2 = 20% 3 = 30% 4 = 40% 5 = 50%	6 = 60% 7 = 70% 8 = 80% 9 = 90% 10 = 100%
Social norms among friends (i.e., perceived sexual activity rates of friends)		Q50. "What percentage of your friends are sexually active?"	0 = 0% 1 = 10% 2 = 20% 3 = 30% 4 = 40% 5 = 50%	6 = 60% 7 = 70% 8 = 80% 9 = 90% 10 = 100%
	Personal risks	Q65. "If you did the following activities [of having unprotected sex], to what extent do you believe that you would be personally at risk of getting hurt or sick?"	0 = No risk at all to 6 = Very much at risk	
	Risks to peers	Q73. "If some other person your age engaged in [having unprotected sex], to what extent do you believe that he/she would be at risk of getting hurt or sick?"	0 = No risk at all to 6 = Very much at risk	
	Risks vs. benefits	Q81. "To what extent are the benefits or pleasures provided by [having unprotected sex] greater than the risks associated with it?"	0 = Risks much greater than the benefits 1 = Risks greater than the benefits 2 = Risks slightly greater than the benefits 3 = Undecided 4 = Benefits slightly greater than the risks 5 = Benefits greater than the risks 6 = Benefits much greater than the risks[a]	

a. For the risks vs. benefits question, the response choices were coded in the opposite direction in SPSS so that 0 = benefits much greater than the risks and 6 = risks much greater than the benefits.

Analytic Methods

The secondary data analysis of the AHRBS utilized a subsample of participants from grades 8, 10, and 12. The subsample size for all analyses was large (N = 915). Aside from questions on grade and sex, five variables related to sexual activity social norms and risk perceptions about having unprotected sex were included in the statistical analyses. These analyses were conducted using Statistics Package for Social Sciences (SPSS Version 16.0).

The first analytic methods performed were descriptive data analyses to explore the data set and better understand the demographic characteristics of the study participants, as well as response patterns. Further exploratory analyses were conducted to determine any patterns with missing data among the subsample; missing data from the five variables were examined by grade and sex and compared to other variables from the original data set. There appear to be no differences and thus indicate no problem with missing data.

For the first null hypothesis, a paired samples t-test was conducted to determine if the mean difference between perceived sexual activity rates of peers and perceived sexual activity rates of friends equaled zero. Two types of analyses were then performed to compare perceptions of both sexual activity rates among 8th, 10th, and 12th graders: 1) three paired samples t-tests at each grade level with the descriptive norms as variables and 2) two one-way analyses of variance (ANOVA) with grade level as the fixed factor and each descriptive norm as the dependent factor. To then compare males and females, two types of analyses were conducted: 1) two paired samples t-tests on each sex group

with the descriptive norms as variables and 2) two independent samples t-tests with sex as the grouping variable and each descriptive norm as the test variable.

For the second null hypothesis, six linear regression analyses were performed to evaluate the relationship between each combination of risk perceptions as the dependent variable and descriptive norms as the independent variable. Beta coefficients were utilized to allow for comparisons to determine if social norms among friends and social norms among peers influence adolescents' sexual risk perceptions differently.

RESULTS

Sample Description

A total of 915 participants (45.9% of the AHRBS dataset) were included in this particular study because of their classification as 8th graders (*N* = 235), 10th graders (*N* = 255), or 12th graders (*N* = 425). The mean age of the participants was 16 years (*SD* = 2), with 47.5% (*N* = 435) as males and 51.9% (*N* = 475) as females. Because a question on ethnic origin was only included in the AHRBS version distributed to students in public schools (*N* = 507), only ethnic origin for public school students was analyzed. Tables 2 and 3 provide summaries of the descriptive characteristics of the sample.

Table 2. Descriptive Characteristics of Participants

Variable	*N*	Percent
School level		
Middle school	235	25.7
High school	680	74.3
School type		
Private school	408	44.6
Public school	507	55.4
Age (in years)		
13 or younger	84	9.2
14	134	14.6
15	121	13.2
16	146	16.0
17	197	21.5
18 or older	229	25.0
Missing	4	.4
Sex		
Male	435	47.5
Female	475	51.9
Missing	5	.5
Grade		
8th	235	25.7
10th	255	27.9
12th	425	46.4

Table 3. Racial/Ethnic Composition of Public School Participants

Racial/Ethnic Origin	*N*	Percent
White or Caucasian	206	40.6
Black or African American	18	3.6
Hispanic or Latino	7	1.4
Native American or Other Pacific Islander	6	1.2
American Indian or Alaskan Native	5	1.0
Other	21	4.1
No Answer	265	52.3

Note. Participants were allowed to mark more than one origin so each case may not represent a separate individual. *N* reflects the number of participants who selected each respective origin and percent indicates the percentage of public school participants with that particular origin.

Results of $H_0$1 Analyses

The first null hypothesis – "Youth will report no differences between the perceived sexual activity rates of peers and the perceived sexual activity rates of friends" – was tested as a paired samples t-test comparing the mean value of youths' perceptions of sexual activity rates of peers (M = 2.68, SD = 2.234) and youths' perceptions of sexual activity rates of friends (M = 1.48, SD = 2.058). The alpha level was set at .05. This test was found to be statistically significant, $t(889) = 13.300$, $p < .000$, indicating differences between perceived sexual activity rates of peers and perceived sexual activity rates of friends (i.e., youths do not equate peers with friends).

For $H_0$1a to test for differences between perceived sexual activity rates of peers and perceived sexual activity rates of friends between 8th, 10th, and 12th graders, five tests were performed. Three separate paired samples t-tests with youths' perceptions of sexual activity rates of peers and youths' perceptions of sexual activity rates of friends as the two variables were conducted: once on 8th-grade cases, once on 10th-grade cases,

and once on 12th-grade cases (see Table 4). Following, two ANOVAs with grade level as the fixed factor were performed: once with youths' perceptions of sexual activity rates of peers as the dependent factor and once with youths' perceptions of sexual activity rates of friends (see Table 5).

Table 4. Comparisons of the Mean Values of Perceived Sexual Activity Rates of Peers and of Friends for 8th, 10th, and 12th Graders

	Sexual Activity Rates			
Grade	Peers	Friends	*t*	*df*
8th Grade	2.07 (4.088)	.71 (1.321)	4.888*	220
10th Grade	2.55 (1.066)	1.00 (1.322)	21.251*	250
12th Grade	3.08 (.879)	2.17 (2.476)	7.972*	417

*$p < .05$

Table 5. Perceived Sexual Activity Rates of Peers and of Friends for 8th, 10th, and 12th Graders

	Grade			
Sexual Activity Rates	8th	10th	12th	*F*
Peers	2.06 (4.054)	2.53 (1.071)	3.08 (.878)	16.608*
Friends	.70 (1.319)	1.00 (1.322)	2.17 (2.476)	51.245*

*$p < .05$

As depicted in Table 4, 1) the sexual activity rate of peers perceived by 8th graders was greater than sexual activity rate of friends, 2) the sexual activity rate of peers perceived by 10th graders was greater than the sexual activity rate of friends, and 3) the sexual activity rate of peers perceived by 12th graders was greater than the sexual activity rate of friends for 12th graders. In addition, as illustrated in Table 5, the

perceived sexual activity rate of peers increased with increasing grade level, as did the perceived sexual activity rate of friends.

For $H_0$1b to test for differences between perceived sexual activity rates of peers and perceived sexual activity rates of friends between males and females, four tests were performed. Two paired samples t-tests with youths' perceptions of sexual activity rates of peers and youths' perceptions of sexual activity rates of friends as the two variables were conducted: once on males and once on females (see Table 6). In addition, two independent samples t-tests were performed with sex as the grouping variable: once with youths' perceptions of sexual activity rates of peers as the test variable and once with youths' perceptions of sexual activity rates of friends (see Table 7).

Table 6. Comparisons of the Mean Values of Perceived Sexual Activity Rates of Peers and of Friends for Males and Females

	Sexual Activity Rates			
Sex	Peers	Friends	*t*	*df*
Male	2.55 (1.183)	1.73 (2.495)	7.464*	420
Female	2.80 (2.877)	1.23 (1.521)	11.190*	463

*$p < .05$

Table 7. Perceived Sexual Activity Rates of Peers and of Friends Means for Males and Females

	Sex			
Sexual Activity Rates	Male	Female	*t*	*df*
Peers	2.55 (1.183)	2.80 (2.877)	-1.724	627.729
Friends	1.73 (2.495)	1.23 (1.521)	3.532*	680.823

*$p < .05$

As reflected in Tables 6 and 7, the null hypotheses for all but one of these tests were rejected. The sexual activity rate of peers perceived by males was greater than the sexual activity rate of friends; the same result occurred for females. In addition, although the perceived sexual activity rate of peers was not different between males and females, the sexual activity rate of friends was greater for males than for females.

Results of $H_0$2 Analyses

The second null hypothesis – "Perceived social norms among peers and perceived social norms among friends will not have different relationships with perceptions of personal risks, risks to peers, or risks versus benefits" – was divided into three sub-hypotheses for each of the three types of risk perceptions. Each sub-hypothesis was tested using two linear regression analyses for a total of six tests.

For $H_0$2a, linear regression analyses were conducted with youths' perceptions of personal risks from having unprotected sex as the dependent variable; of these analyses, one included youths' perceptions of sexual activity rates of peers as the independent variable and the other included youths' perceptions of sexual activity rates of friends. For $H_0$2b and $H_0$2c, the same independent variables were included, but with youths' perceptions of risks to peers and youths' perceptions of risks versus benefits as the dependent variables, respectively. The results for all six linear regression analyses are included in Table 8.

Table 8. Summary of Simple Linear Regression Analyses for Variables Predicting Perceived Personal Risks, Risks to Peers, and Risks vs. Benefits

	Personal Risks			Risks to Peers			Risks vs. Benefits		
Variable	*B*	*SE B*	*β*	*B*	*SE B*	*β*	*B*	*SE B*	*β*
Sexual Activity Rates									
Peers	-.153	.042	-.122*	-.073	.021	-.117*	-.109	.026	-.143*
Friends	-.198	.029	-.224*	-.179	.029	-.206*	-.165	.028	-.198*

Note. *B* is the unstandardized regression coefficient; *β* is the standardized coefficient. Standardized residuals were not normal according to Kolmogorov-Smirnov's test of normality ($p < .05$).
*$p < .05$

As depicted in Table 8, all six sub-hypotheses for $H_0 2$ were rejected and all beta weights were negative. Thus, there were negative relationships between 1) perceived sexual activity rate of peers and perceived personal risks from having unprotected sex, 2) perceived sexual activity rate of friends and personal risks, 3) perceived sexual activity rate of peers and perceived risks to peers, 4) perceived sexual activity rate of friends and risks to peers, 5) perceived sexual activity rate of peers and perceived risks vs. benefits, and 6) perceived sexual activity rate of friends and risks vs. benefits. In addition, the beta weight for the relationship between perceived sexual activity rate of friends and perceived personal risks was more negative than the beta weight for the relationship between perceived sexual activity rate of peers and perceived personal risks. This was also true for risks to peers and risks vs. benefits, indicating that perceived social norms among peers and perceived social norms among friends influence risk perceptions differently. However, because the beta weights in Table 8 were from separate linear regression analyses, their differences could not be compared for significance.

DISCUSSION

The purpose of this study was to develop a more complete understanding of how peers influence adolescents' risk-taking attitudes and behaviors concerning sexual activity by making a distinction between social norms among peers and social norms among friends, as well as determining if such distinctions affect adolescents' own risk perceptions. Consistent with the study's hypotheses, the findings from this study indicate that adolescents perceive a difference between social norms among peers and social norms among friends and that these differences exist by developmental status and sex. In addition, youths' perceptions of sexual activity rates of peers and youths' perceptions of sexual activity rates of friends appear to influence risk perceptions differently.

The study's analyses also revealed that on average, perceived sexual activity rates of peers increased with increasing grade level (see Table 5), which agrees with findings from the YRBSS that the prevalence of being currently sexually active increases by grade (Eaton et al., 2008). In addition, when comparing grade levels, differences between perceived sexual activity rates of peers and perceived sexual activity rates of friends became less distinct with increasing grade level. Not only may this finding be due to a possible increase in sexual activity from 8th to 10th to 12th grade, there may be increased communication and knowledge about sexual activities among friends with increasing grade level.

As for gender comparisons, the AHRBS did not contain any questions about the perceived sexual activity rates of males or females, so no conclusions can be made about whether males or females are more sexually active. However, the study's analyses revealed that the difference between perceived sexual activity rates of peers and perceived sexual activity rates of friends was greater for females than for males. One possible reason for this finding may be related to gender differences in the quality and content of sex-related communication (DiIorio, Kelley, & Hockenberry-Eaton, 1999; Lefkowitz, Boone, & Shearer, 2004).

Lastly, based on the beta weights in Table 8, as adolescents perceived greater percentages of peers being sexually active or friends being sexually active, their perception of risks from having unprotected sex decreased. These results are consistent with findings that peers may influence adolescents' attitudes and behaviors regarding sexual activity to be similar to their own (Albarracin et al., 2004; Fang et al., 1998).

Limitations and Recommendations

There are several limitations of the study. Some of the limitations arise from the AHRBS instrument, which was originally constructed to explore alcohol, tobacco, and other drug use among adolescents. Thus, its focus on sexual behavior is limited, and there are only a minimal number of questions that explore adolescent sexual behavior and risks. Unlike the remainder of the survey that includes questions on actual behaviors regarding usage of alcohol, tobacco, and drugs, there are no questions on sexual activity. Future efforts should expand upon the findings from the present study by collecting data

on questions related to sexual activity behavior and investigating any relationships among perceived social norms, perceived risk, and actual behavior.

Related to the AHRBS instrument, another limitation is the use of single-item measures in this study. Not only can single-item measures not provide estimates of internal consistency reliability, there is uncertainty concerning the extent to which they represent and measure constructs (Wanous, Reichers, & Hudy, 1997). However, Smith, McKyer, and Larson (in press) tested the psychometric properties of the AHRBS instrument and found that the scales had acceptable psychometric properties.

Another limitation of the study concerns selection bias. Because the data were collected in a survey of adolescents, the data were subject to reporter bias and selection bias of those students who had agreed to participate. Similarly, by including high school seniors in the analyses, the sample did not include those young adults who had dropped out of high school before their senior year (Bachman et al., 2006). Risk behaviors tend to be above average in this group, so data were subject to selection bias of those students who had not drop out. However, because the variables in this study concern perceptions about sexual activity rates rather than actual sexual activity behavior, it is justifiable to assume that there should be little effects caused by the omission of those who refused to participate or of dropouts from senior samples.

Final limitations relate to the statistical tests utilized. First, the questions in the AHRBS are measured using an ordinal scale, which has limitations in terms of statistical analyses available. Some statisticians argue that t-tests, ANOVAs, and linear regressions are not applicable to ordinal-level data, although social scientists continue to

use these tests for such data (Jakobsson, 2004; Traxler, Blaschke, & Kittel, 2001). Second, although the linear regression analyses for the second hypothesis suggest that social norms among friends have a stronger negative influence than social norms among peers on risk perceptions, the study cannot compare the differences in beta weights for significance. To address the latter limitation, future research should include analyses to expand upon the current results by exploring which social norm is a stronger predictor of risk perceptions, as well as which sex or grade level is more susceptible to peer influences.

Implications

Despite limitations – many of which could not be controlled for or avoided due to the nature of the survey data used – the present study builds upon existing knowledge regarding the influence of peer norms on adolescent sexual activity and has numerous implications for future research and interventions. First, the findings from the study indicate that there are differences between social norms among peers and social norms among friends and that adolescents – by sex and by grade – make distinctions between peers and friends. Thus, the term "peers" should not be used interchangeably with the term "friends." Future research concerning this notion can contribute to a deeper understanding of how adolescents define and distinguish the two terms.

Second, the findings suggest that social norms among friends have different influences than social norms among peers on risk perceptions. With future research to quantitatively explore and describe these relationships, future sex education

interventions and programs can better target the importance of friends in shaping adolescents' perceptions about and intentions to engage in sexual activity. Such programs, after consideration into how to successfully deliver and implement sex education with this focus, can provide adolescents with strategies to resist pressure from friends to engage in risky sexual behaviors and can also open the lines of communication between friends. In addition, targeting intervention efforts towards the influence of friends, rather than the influence of peers, can contribute to more effective and efficient efforts.

CONCLUSION

Adolescent sexual activity has become a crucial issue in the field of public health. As more studies and statistics are released that reveal the high rates of sexual activity and sexually-transmitted infections among young adults, the importance of better understanding the mechanisms and extent to which interpersonal relationships influence adolescent sexual activity magnifies. This study has demonstrated that such factors as social norms among peers and social norms among friends are not the same, and it is crucial to further investigate how social norms among friends influence adolescents' risk perceptions and ultimately, risk behaviors. Such research will hopefully illuminate new ways to understand and change the attitudes and behaviors of adolescents.

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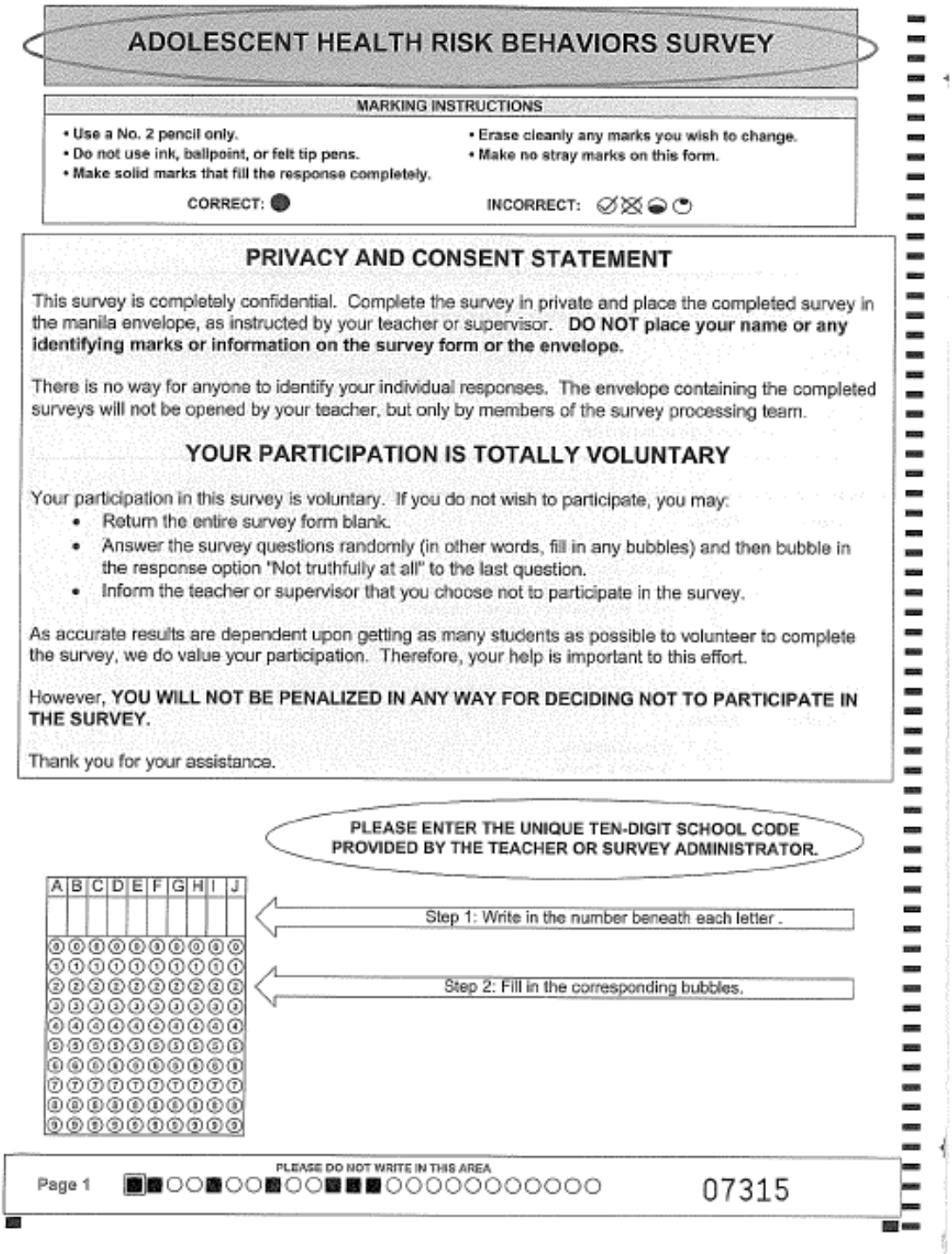
APPENDIX A

AHRBS INSTRUMENT



ADOLESCENT HEALTH RISK BEHAVIORS SURVEY

MARKING INSTRUCTIONS

- Use a No. 2 pencil only.
- Do not use ink, ballpoint, or felt tip pens.
- Make solid marks that fill the response completely.
- Erase cleanly any marks you wish to change.
- Make no stray marks on this form.

CORRECT: ● INCORRECT: ⊘ ⊠ ◒ ◔

PRIVACY AND CONSENT STATEMENT

This survey is completely confidential. Complete the survey in private and place the completed survey in the manila envelope, as instructed by your teacher or supervisor. **DO NOT place your name or any identifying marks or information on the survey form or the envelope.**

There is no way for anyone to identify your individual responses. The envelope containing the completed surveys will not be opened by your teacher, but only by members of the survey processing team.

YOUR PARTICIPATION IS TOTALLY VOLUNTARY

Your participation in this survey is voluntary. If you do not wish to participate, you may:

- Return the entire survey form blank.
- Answer the survey questions randomly (in other words, fill in any bubbles) and then bubble in the response option "Not truthfully at all" to the last question.
- Inform the teacher or supervisor that you choose not to participate in the survey.

As accurate results are dependent upon getting as many students as possible to volunteer to complete the survey, we do value your participation. Therefore, your help is important to this effort.

However, **YOU WILL NOT BE PENALIZED IN ANY WAY FOR DECIDING NOT TO PARTICIPATE IN THE SURVEY.**

Thank you for your assistance.

PLEASE ENTER THE UNIQUE TEN-DIGIT SCHOOL CODE PROVIDED BY THE TEACHER OR SURVEY ADMINISTRATOR.

A B C D E F G H I J

Step 1: Write in the number beneath each letter.

Step 2: Fill in the corresponding bubbles.

PLEASE DO NOT WRITE IN THIS AREA

Page 1

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AGE IN YEARS	GENDER	GRADE	ETHNIC ORIGIN How do you describe yourself? (Mark all that apply)
00 11 22 33 44 55 66 77 88 99	0 Male 1 Female	0 6th 1 7th 2 8th 3 9th 4 10th 5 11th 6 12th	0 White or Caucasian 1 Black or African American 2 Hispanic or Latino 3 Native Hawaiian or Other Pacific Islander 4 American Indian or Alaskan Native 5 Other

1. **Which family members live with you? Mark all that apply.**

- ◯ Father
- ◯ Mother
- ◯ Stepfather
- ◯ Stepmother
- ◯ Older sibling (please specify the number _____)
- ◯ Younger sibling (please specify the number _____)
- ◯ Grandfather
- ◯ Grandmother
- ◯ Others (please specify the number _____)

2. **Which of these comes closest to describing your parents' educational backgrounds?** (Mark one for each parent)

Mother	*Father*	
0	0	Junior high school
1	1	Senior high school
2	2	Junior college / college work / college degree
3	3	Some graduate work / master's degree
4	4	Professional degree / doctoral degree (e.g., M.D., Ph.D.)

3. **What are your parents' work status'? (Mark one for each parent)**

Mother	*Father*	
0	0	Working full-time
1	1	Working part-time
2	2	Not working

PLEASE DO NOT WRITE IN THIS AREA

PLEASE DO NOT WRITE IN THIS AREA

How well do the following statements describe you? Rate each statement on the following scale by filling in bubble which best fits.

	Describes me very well	Describes me well	Describes me fairly well	Does not quite describe me	Does not describe me well	Does not describe me at all
1. I "lose my head" easily	0	1	2	3	4	5
2. At times I have crying and/or laughing fits that I seem unable to control	0	1	2	3	4	5
3. I can take criticism without resentment	0	1	2	3	4	5
4. Even under pressure I manage to remain calm	0	1	2	3	4	5
5. I keep an even temper most of the time	0	1	2	3	4	5
6. I fear something constantly	0	1	2	3	4	5
7. Usually I control myself	0	1	2	3	4	5
8. In the past year I have been very worried about my health	0	1	2	3	4	5
9. I am proud of my body	0	1	2	3	4	5
10. I seem to be forced to imitate people I like	0	1	2	3	4	5
11. Very often I think that I am not at all the person I would like to be	0	1	2	3	4	5
12. I frequently feel ugly and unattractive	0	1	2	3	4	5
13. When others look at me they must think that I am poorly developed	0	1	2	3	4	5
14. I feel strong and healthy	0	1	2	3	4	5
15. If I put my mind to it, I can learn almost anything	0	1	2	3	4	5
16. When I decide to do something, I do it.	0	1	2	3	4	5
17. I find life an endless series of problems without a solution in sight	0	1	2	3	4	5
18. I feel that I am able to make decisions	0	1	2	3	4	5
19. I feel that I have no talent whatsoever	0	1	2	3	4	5

20. How often do you compare how well things are going for you in general (socially, personally, etc.) with other people?

0 Never 1 Rarely 2 Usually 3 Often 4 Always

21. When you receive exam scores back, how likely is it that you would compare your current score with how well you did on *previous* exams?

0 Least likely
1 Less likely
2 Don't know
3 More likely
4 Most likely

22. When you receive exam scores back, how likely is it that you would compare your current score with how well others did on the same exam?

0 Least likely
1 Less likely
2 Don't know
3 More likely
4 Most likely

Please indicate how much each of the following words describes you
(For example, if you think you are a little more popular than most people your age, then you'd answer with a '5' on the scale").

	Not at all like me				Exactly like me
23. Popular	0	1	2	3	4
24. Smart	0	1	2	3	4
25. Considerate	0	1	2	3	4
26. Confused	0	1	2	3	4
27. Immature	0	1	2	3	4
28. "Cool" (sophisticated)	0	1	2	3	4

	Not at all like me				Exactly like me
29. Self-confident	0	1	2	3	4
30. Unattractive	0	1	2	3	4
31. Dull (boring)	0	1	2	3	4
32. Independent	0	1	2	3	4
33. Careless	0	1	2	3	4
34. Self-centered	0	1	2	3	4

Please indicate how well the following describes you by bubbling in "true" or "false."

35. More often than not I feel put down by the kids at school. 0 True 1 False

36. My parents do not like me very much. 0 True 1 False

PLEASE DO NOT WRITE IN THIS AREA

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How do you think your close friends feel (or would feel) about you doing each of the following thing:

	Strongly Approve	Approve	Don't Know	Disapprove	Strongly Disapprove
37. Smoke one or more packs of cigarettes per day	0	1	2	3	4
38. Take four or more drinks of alcohol (beer, wine, liquor) daily.	0	1	2	3	4
39. Take one or two drinks of alcohol (beer, wine, liquor) occasionally	0	1	2	3	4
40. Use marijuana occasionally	0	1	2	3	4
41. Use marijuana daily	0	1	2	3	4
42. Use illicit drugs	0	1	2	3	4

How do you think your parents feel (or would feel) about you doing each of the following things:

	Strongly Approve	Approve	Don't Know	Disapprove	Strongly Disapprove
43. Smoke one or more packs of cigarettes per day	0	1	2	3	4
44. Use illicit drugs	0	1	2	3	4
45. Take one or two drinks of alcohol (beer, wine, liquor) occasionally	0	1	2	3	4

Please provide your own estimation of the following:

	0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
About people your age											
46. What percentage of *people your age* do you think are sexually active?	0	1	2	3	4	5	6	7	8	9	○
47. What percentage of *people your age* do you think smoke cigarettes?	0	1	2	3	4	5	6	7	8	9	○
48. What percentage of *people your age* do you think use illicit drugs?	0	1	2	3	4	5	6	7	8	9	○
49. What percentage of *people your age* do you think drink alcohol regularly?	0	1	2	3	4	5	6	7	8	9	○
About your friends											
50. What percentage of *your friends* are sexually active?	0	1	2	3	4	5	6	7	8	9	○
51. What percentage of *your friends* smoke cigarettes?	0	1	2	3	4	5	6	7	8	9	○
52. What percentage of *your friends* use illicit drugs?	0	1	2	3	4	5	6	7	8	9	○
53. What percentage of *your friends* drink alcohol regularly?	0	1	2	3	4	5	6	7	8	9	○

***IF YOU* did the following activities, to what extent do you believe that you would be personally at risk of getting hurt or sick?**

	No Risk At All						Very Much At Risk
54. Drinking beer	0	1	2	3	4	5	6
55. Drinking wine	0	1	2	3	4	5	6
56. Drinking whiskey	0	1	2	3	4	5	6
57. Drinking alcohol (beer, wine, whiskey, liquor) occasionally	0	1	2	3	4	5	6
58. Drinking any alcohol (beer, whine, whiskey, liquor) at all	0	1	2	3	4	5	6
59. Drinking five (males) / four (females) or more drinks in a row	0	1	2	3	4	5	6
60. Smoking cigarettes	0	1	2	3	4	5	6
61. Using marijuana occasionally	0	1	2	3	4	5	6
62. Using any marijuana at all	0	1	2	3	4	5	6
63. Taking methamphetamines	0	1	2	3	4	5	6
64. Using inhalants (glue, fumes, amyls, thinner)	0	1	2	3	4	5	6
65. Having unprotected sex	0	1	2	3	4	5	6

PLEASE DO NOT WRITE IN THIS AREA

07315

IF some other person your age **engaged in the following activities, to what extent do you believe that he/she would be at risk of getting hurt or sick?**

	No Risk At All						Very Much At Risk
	0	1	2	3	4	5	6
66. Drinking beer	0	1	2	3	4	5	6
67. Drinking wine	0	1	2	3	4	5	6
68. Drinking whiskey	0	1	2	3	4	5	6
69. Drinking five (males) / four (females) or more drinks in a row	0	1	2	3	4	5	6
70. Smoking cigarettes	0	1	2	3	4	5	6
71. Taking methamphetamines	0	1	2	3	4	5	6
72. Using inhalants (glue, fumes, amyls, thinner)	0	1	2	3	4	5	6
73. Having unprotected sex	0	1	2	3	4	5	6

To what extent are the benefits or pleasures provided by each of the following activities greater than the risks associated with it?

	Risks *much greater* than the benefits	Risks *greater* than the benefits	Risks *slightly greater* than the benefits	Undecided	Benefits *slightly greater* than the risks	Benefits *greater* than the risks	Benefits *much greater* than the risks
74. Drinking beer	0	1	2	3	4	5	6
75. Drinking wine	0	1	2	3	4	5	6
76. Drinking whiskey	0	1	2	3	4	5	6
77. Drinking 5 (males) / 4 (females) drinks or more in a row	0	1	2	3	4	5	6
78. Smoking cigarettes	0	1	2	3	4	5	6
79. Taking methamphetamines	0	1	2	3	4	5	6
80. Using inhalants (glue, fumes, amyls, thinner)	0	1	2	3	4	5	6
81. Having unprotected sex	0	1	2	3	4	5	6

Please answer the following questions by bubbling in the appropriate response.

82. Have you ever smoked cigarettes?

- 0 Never smoked
- 1 Once or twice
- 2 Occasionally, but not regularly
- 3 Regularly in the past
- 4 Regularly now

83. If you have ever smoked cigarettes, at what age did you first use them?

- 0 Never smoked
- 1 7 years old or less
- 2 8 - 9 years old
- 3 10 -12 years old
- 4 13 - 15 years old
- 5 16 - 17 years old
- 6 18 or more years old

84. How often in the *last year* have you smoked cigarettes?

- 0 None
- 1 1 - 5 times
- 2 6 - 19 times
- 3 20 - 40 times
- 4 More than 40 times

85. Do either or both of your parents smoke?

- 0 Only father smokes
- 1 Only mother smokes
- 2 Both father and mother smoke
- 3 Neither father nor mother smoke

86. Do any one of your brothers or sisters smoke?

- 0 Yes (write in the numer of siblings who smoke _____)
- 1 No

87. How many of your friends smoke?

0 None 1 One 2 Two 3 Three 4 More than 3

If more than 3 friends smoke, indicate how many by writing the number in the box. [ ]

88. If you have ever used marijuana, at what age did you first use it?

- 0 Never used marijuana
- 1 7 years old or less
- 2 8-10 years old
- 3 10-12 years old
- 4 13-15 years old
- 5 16 - 17 years old
- 6 18 or more years old

89. If you have ever drank alcohol, at what age did you first drink?

- 0 Never drank alcohol
- 1 7 years old or less
- 2 8-10 years old
- 3 10-12 years old
- 4 13-15 years old
- 5 16 - 17 years old
- 6 18 or more years old

90. Compared to others your age, would you say your health is. . .

0 Excellent 1 Good 2 Fair 3 Poor

PLEASE DO NOT WRITE IN THIS AREA

Please answer the following questions by bubbling in the appropriate response.

	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
91. Smoking is OK as long as you don't smoke too many.	⓪	①	②	③	④
92. A person who eats right and exercises regularly can smoke without harming his/her health.	⓪	①	②	③	④
93. If you are young and healthy, cigarette smoking is not dangerous.	⓪	①	②	③	④
94. The anti-smoking ads twist the facts to make cigarette smoking look worse for your health that it really is.	⓪	①	②	③	④
95. If I smoke cigarettes, I will live for a long time.	⓪	①	②	③	④
96. If I smoke cigarettes, I will live a healthy life.	⓪	①	②	③	④
97. If I smoke cigarettes, I will get lung cancer.	⓪	①	②	③	④
98. If I smoke cigarettes, I will get heart disease.	⓪	①	②	③	④
99. If I smoke cigarettes, I will cough.	⓪	①	②	③	④
100. If I smoke cigarettes, I will feel good.	⓪	①	②	③	④
101. If I smoke cigarettes, I will be able to relax.	⓪	①	②	③	④
102. If I smoke cigarettes, I will be able to get away from my problems.	⓪	①	②	③	④
103. If I smoke cigarettes, I will be less nervous is social situations.	⓪	①	②	③	④
104. If I smoke cigarettes, I will be able to concentrate better at work and/or school.	⓪	①	②	③	④
105. If I smoke cigarettes, I will be hooked.	⓪	①	②	③	④
106. If I smoke cigarettes, I will feel left out of the group.	⓪	①	②	③	④
107. If I smoke cigarettes, I will lose my friends.	⓪	①	②	③	④
108. The goal of achieving a healthy lifestyle is an important influence on my behavior.	⓪	①	②	③	④

109. If I smoke cigarettes, that is because it is . . .

⓪ Not applicable; I don't smoke
① Very pleasant
② Pleasant
③ Neither pleasant nor unpleasant
④ Unpleasant
⑤ Very unpleasant

110. If I smoke cigarettes, that is because it is . . .

⓪ Not applicable; I don't smoke
① Very nice
② Nice
③ Neither nice nor awful
④ Awful
⑤ Very awful

111. If I smoke cigarettes, that is because it is . . .

⓪ Not applicable; I don't smoke
① A lot of fun
② Fun
③ A little fun
④ Not fun
⑤ Not fun at all

Please mark the choice that shows how much you agree or disagree with each statement about your friends.

	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
112. Most of my friends think that getting good grades is important.	⓪	①	②	③	④
113. Most of my friends think school is a pain.	⓪	①	②	③	④
114. My friends often try to get me to do things the teacher doesn't like.	⓪	①	②	③	④

Please think of your best friend in this school. As far as you know, rate how much you agree with the following statements about him/her.

	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
115. Is interested in school.	⓪	①	②	③	④
116. Attends class regularly.	⓪	①	②	③	④
117. Plans to go to college.	⓪	①	②	③	④
118. Belongs to a gang.	⓪	①	②	③	④
119. Gets in trouble with the police.	⓪	①	②	③	④

120. How many of your friends have been picked up by the police?

⓪ None ① One ② Some ③ Most ④ All

121. How many times in the last two weeks have you had five or more alcoholic drinks (beer, wine, liquor) in a sitting?

⓪ None
① Once
② Twice
③ 3 to 5 times
④ 6 to 9 times
⑤ 10 or more times

LIFETIME USE:

HAVE YOU *EVER* USED. . .?

	Never	1-5 Times	6-19 Times	20-40 Times	More than 40 Times
122. Snuff/Smokeless tobacco	0	1	2	3	4
123. Cigars (tobacco)	0	1	2	3	4
124. Pipe (tobacco)	0	1	2	3	4
125. Alcohol (beer, wine, wine coolers, liquor)	0	1	2	3	4
126. Marijuana (hashish or hash oil)	0	1	2	3	4
127. Cocaine	0	1	2	3	4
128. Crack	0	1	2	3	4
129. Inhalants (huffing glue, fumes, amyls)	0	1	2	3	4
130. Amphetamines (uppers)	0	1	2	3	4
131. Methamphetamines (meth, crank, crystal)	0	1	2	3	4
132. Ritalin (non-prescribed use only)	0	1	2	3	4
133. Methcanthinone (cat)	0	1	2	3	4
134. Tranquilizers or Sleeping Pills (downers) (non-prescribed)	0	1	2	3	4
135. Narcotics (opium, morphine, codeine) (non-prescribed)	0	1	2	3	4
136. Heroin	0	1	2	3	4
137. LSD (acid)	0	1	2	3	4
138. MDMA (ecstasy, XTC, X)	0	1	2	3	4
139. Other Psychedelics (psilocybin, mescaline, etc.)	0	1	2	3	4
140. Rohypnol (Roofies)	0	1	2	3	4
141. GHB	0	1	2	3	4
142. Steroids (non-prescribed use)	0	1	2	3	4
143. A needle or syringe to inject a drug	0	1	2	3	4

144. If you have ever used inhalants (huffing glue, fumes, amyls), at what age did you first use them?

- 0 Never used inhalants
- 1 7 years old or less
- 2 8 - 9 years old
- 3 10 -12 years old
- 4 13 - 15 years old
- 5 16 - 17 years old
- 6 18 or more years old

ANNUAL USE

HOW MANY TIMES IN THE *LAST YEAR* HAVE YOU USED. . .?

	Never	1-5 Times	6-19 Times	20-40 Times	More than 40 Times
145. Snuff/Smokeless tobacco	0	1	2	3	4
146. Cigars (tobacco)	0	1	2	3	4
147. Pipe (tobacco)	0	1	2	3	4
148. Alcohol (beer, wine, wine coolers, liquor)	0	1	2	3	4
149. Marijuana (hashish or hash oil)	0	1	2	3	4
150. Cocaine	0	1	2	3	4
151. Crack	0	1	2	3	4
152. Inhalants (huffing glue, fumes, amyls)	0	1	2	3	4
153. Amphetamines (uppers)	0	1	2	3	4
154. Methamphetamines (meth, crank, crystal)	0	1	2	3	4
155. Ritalin (non-prescribed use only)	0	1	2	3	4
156. Methcanthinone (cat)	0	1	2	3	4
157. Tranquilizers or Sleeping Pills (downers) (non-prescribed)	0	1	2	3	4
158. Narcotics (opium, morphine, codeine) (non-prescribed)	0	1	2	3	4
159. Heroin	0	1	2	3	4
160. LSD (acid)	0	1	2	3	4
161. MDMA (ecstasy, XTC, X)	0	1	2	3	4
162. Other Psychedelics (psilocybin, mescaline, etc.)	0	1	2	3	4
163. Rohypnol (Roofies)	0	1	2	3	4
164. GHB	0	1	2	3	4
165. Steroids (non-prescribed use)	0	1	2	3	4
166. A needle or syringe to inject a drug	0	1	2	3	4

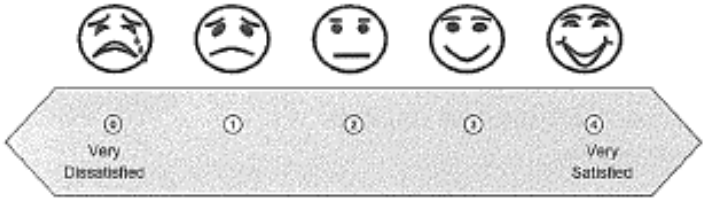
PLEASE DO NOT WRITE IN THIS AREA

USE IN PAST MONTH

HOW MANY TIMES IN THE PAST MONTH (30 DAYS) HAVE YOU USED. . .?

	Never	1-5 Times	6-19 Times	20-40 Times	More than 40 Times
167. **Cigarettes**	0	1	2	3	4
168. **Snuff/Smokeless tobacco**	0	1	2	3	4
169. **Cigars** (tobacco)	0	1	2	3	4
170. **Pipe** (tobacco)	0	1	2	3	4
171. **Alcohol** (beer, wine, wine coolers, liquor)	0	1	2	3	4
172. **Marijuana** (hashish or hash oil)	0	1	2	3	4
173. **Cocaine**	0	1	2	3	4
174. **Crack**	0	1	2	3	4
175. **Inhalants** (huffing glue, fumes, amyls)	0	1	2	3	4
176. **Amphetamines** (uppers)	0	1	2	3	4
177. **Methamphetamines** (meth, crank, crystal)	0	1	2	3	4
178. **Ritalin** (non-prescribed use only)	0	1	2	3	4
179. **Methcanthinone** (cat)	0	1	2	3	4
180. **Tranquilizers or Sleeping Pills** (downers) (non-prescribed)	0	1	2	3	4
181. **Narcotics** (opium, morphine, codeine) (non-prescribed)	0	1	2	3	4
182. **Heroin**	0	1	2	3	4
183. **LSD** (acid)	0	1	2	3	4
184. **MDMA** (ecstasy, XTC, X)	0	1	2	3	4
185. **Other Psychedelics** (psilocybin, mescaline, etc.)	0	1	2	3	4
186. **Rohypnol** (Roofies)	0	1	2	3	4
187. **GHB**	0	1	2	3	4
188. **Steroids** (non-prescribed use)	0	1	2	3	4
189. **A needle or syringe to inject a drug**	0	1	2	3	4

190. **HOW MUCH ARE YOU SATISFIED WITH YOUR LIFE?**



HOW TRUTHFULLY DID YOU ANSWER THESE QUESTIONS?

0 Not truthfully at all 1 Somewhat truthfully 2 Quite Truthfully

YOU HAVE COMPLETED THE SURVEY!
THANK YOU!

PLEASE DO NOT WRITE IN THIS AREA

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VITA

Name:	Cassandra Somadevi Diep
Address:	Texas A&M University Department of Health and Kinesiology 158 Read Building TAMU 4243 College Station, TX 77843-4243
Email Address:	csdiep@tamu.edu
Education:	B.A., Kinesiology – Health Sciences, Rice University, 2007 M.S., Health Education, Texas A&M University, 2009